SIEMENS

ARCADIS Varic

SP

Maintenance Protocol

System

Customer:	
Address:	
Department:	
Room:	
Contact person:	
Telephone:	
Customer no.:	
Cust. specific no.:	
Date.:	

The instructions SPR2-310.831.01.02.02 is requied for these protocol

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English
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SIEMENS Office:	
Address:	
Region:	
Country:	
Contact person:	
Tel.:	
CSE in charge:	
Tel.:	

Remarks Regarding the Protocol:

The protocol is valid as proof of quality for **one** check that must be performed on the system / component in one year.

The check must be performed in the specified intervals.

The results of the check are entered in this protocol.

The page numbers after the checkpoints refer to the corresponding page in the appropriate instructions (see cover page).

The protocol must be completely filled out by the Customer Service Engineer, i.e.:

- All boxes must be filled out. If a box does not apply to the system or if no entry needs to be made, check the “n.a.“ box.
- Enter the customer number (Cust. No.:) and the date of the check in the header of each page so that each page can be allocated to a customer and to a check date.
- If there are complaints, the IVKs for the component about which a complaint has been made as well as the type of complaint must be entered in the “Open Points“ table provided for this. Correction of these open points also must be documented in this table with the date and a signature. If there are no open points, check “No“ and document this with the date and a signature.
- If movable components (also test phantoms that are part of the system) that can be used in different systems are used for the check, they must be entered in the “Movable Components“ table provided for this.
- The measurement values for the measurements that must be performed during the check must also be entered in the open spaces / tables provided for them.
- After completing the check, Page 3 of this protocol must be filled out and signed.

Further Processing and Archiving of the Protocol

The protocol is a document and thus must be archived. After completing the test, it must be filed in the corresponding register in the “System Owner Manual“ binder. If needed, a copy can be handed to the customer.

System:	
Serial No.:	
Software Version:	
Number of the Service Contract:	
Type of Maintenance:	

Evaluating the Condition of the System / Component

The system has no deficiencies. The image quality test resulted in no differences from required reference values.	☐
The system / component has slight deficiencies that have no affect on continued operation of the system. However they should be corrected preventively. The image quality test resulted in no differences from required reference values.	☐
The system / component has serious deficiencies. For safety reasons, continued operation of the system is permitted only after successfully correcting the deficiencies.	☐

After completing all work steps, an evaluation was performed.		
Date:	**Name of Technician:**	**Signature:**

The operator or a person assigned for this has taken note of this evaluation. (if national regulations require this)		
Date:	**Name:**	**Signature:**

Explanation of Abbreviations in the Protocol

Abbrev.	Explanation		Abbrev.	Explanation
SI	Safety Inspection		PMF	Preventive Maintenance, Operating Value Check, Function Check
SIE	Electrical Safety Inspection		Q	System Quality, Image Quality
SIM	Mechanical Safety Inspection		QIQ	Image Quality
PM	Preventive Maintenance		QSQ	System Quality Check
PMP	Periodic Preventive Maintenance		SW	Software Maintenance
PMA	Preventive Maintenance Adjustments		CSE	Customer Service Engineer

Activities performed

Only additional activities that are not described in the instructions for the system / component need to be listed.

	Date:		
Activities performed:	OK	not OK	n.a.
	☐	☐	☐
	☐	☐	☐
	☐	☐	☐
	☐	☐	☐
	☐	☐	☐

Open Points

Yes ☐ No ☐ Date / Signature: _____

If “Yes“, enter the component with the IVK and the open point (only the number) in the table. After completing maintenance, record this in the table.

IVK	Component	Open Points	Completed	
			Date	Signature

Measuring Devices

If the measurement devices are sensed electronically, for example with a “scout”, entry of the measuring devices in the table can be skipped.

Measuring devices electronically sensed?

Yes ☐ No ☐ Date / Signature: _____

Measuring Devices	Type	Serial No.	Date Used	Next Calibration Due

Movable Components

Yes ☐ No ☐ Date / Signature: _____

If “Yes“, enter the movable component with which the check was performed along with the with the Serial No. in the table.

Movable components (also test phantoms that are part of the system) are parts that can be used on different systems).

Component	Serial No.

OK | not OK | n.a.

1 General

1.1 Requirements

1.2 Required documents

1.2.1 When laser light localizer is present

1.2.2 When I.I. laser light localizer is present

1.3 Required tools, test equipment and aids

1.4 Potentially required spare parts

1.5 Emphasized texts

1.6 Safety information and preventive measures

1.7 Explanation of abbreviations

1.8 Maintenance interval

2 Visual and electrical inspection

2.1 Visual inspection

PMP	Damage	☐	☐	☐

2.2 Electrical inspection

2.2.1 Outlets

SIE	Damage	☐	☐	☐
SIE	Line voltage	☐	☐	☐
SIE	Internal line impedance	☐	☐	☐

3 Safety inspection

3.1 Mechanical safety inspection

SIM	Cover panels	☐	☐	☐
SIM	Cable deflectors	☐	☐	☐
SIM	I.I. laser light localizer mechanics (if available)	☐	☐	☐
SIM	I.I. laser light localizer function (if available)	☐	☐	☐
SIM	Laser light localizer mechanics (if available)	☐	☐	☐
SIM	Laser light localizer function (if available)	☐	☐	☐
SIM	Foot brake	☐	☐	☐
SIM	Brakes	☐	☐	☐
SIM	C-arm	☐	☐	☐
SIM	Wheels	☐	☐	☐

SIM	Lifting column	☐☐☐
SIM	Cassette holder (if present)	☐☐☐
SIM	Warning signs	☐☐☐
SIM	ID labels	☐☐☐
SIM	TFT monitor(s)	☐☐☐

3.2 Electrical safety inspection

SIE	Cables and plugs	☐☐☐
SIE	Fluoroscopic timer	☐☐☐
SIE	Acoustic warning signal	☐☐☐
SIE	Compulsory radiation shut off	☐☐☐
SIE	Check the radiation release switch	☐☐☐
SIE	Radiation indicator	☐☐☐
SIE	Iris collimator	☐☐☐
SIE	Conductive rubber	☐☐☐
SIE	Ground wire test	☐☐☐
SIE	Equivalent leakage current	☐☐☐

4 Maintenance, operating value, and functional inspection

4.1 Maintenance

PMP	Cleaning the system	☐☐☐
PMP	System ventilation	☐☐☐

4.2 Operating value inspection

SIE	Dose rate	☐☐☐
PMF	Event log	☐☐☐

4.3 Functional inspection

SIE	TFT monitor	☐☐☐
SIE	Cassette exposure collimation (if present)	☐☐☐
SIE	Area dose product measuring unit (if present)	☐☐☐
PMF	Laser camera connection (if present)	☐☐☐
PMF	Check the operating function.	☐☐☐
PMF	Monitor display of the iris collimator opening	☐☐☐
PMF	PMF monitor display of the slot diaphragm positions.	☐☐☐
PMF	Battery replacement in the UPS	☐☐☐

5 Final result/quality inspection and maintenance

SIE	IQ quick test	☐☐☐
PMP	Maintenance	☐☐☐

5.1 Final work steps

SIE	Ground wire test	☐☐☐
SIE	Ground wire resistance	☐☐☐